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GREAT MEETING IN CLEVELAND

Technology Clubs Associated are entertained by the Technology Club of Northern Ohio—A delightful and profitable meeting

No one who attended the meeting of the Technology Clubs in Cleveland, April 19, 20 and 21, can ever doubt that this institution has a place in building up Technology that is approached by no other function of the alumni. Although it is true that the exigencies of war reduced the number that would have attended by at least one-third, the attendance was amply satisfactory and it made up in spirit what it lacked in numbers.

The hospitality of the Tech Club of Northern Ohio knew no bounds. The visitors were entertained for three days in Cleveland and Akron and during that time the only charge for entertainment furnished by the club was for the big banquet on Saturday night. The machinery for handling the reunion was carefully laid out months before the event occurred and each feature of the entertainment was ably handled by some member of the club.

Headquarters were located at Hotel Statler where the visitor was provided with credentials and a handsome badge and a program revealing three days of almost constant entertainment. During the afternoon of Thursday, the nineteenth, the visitors were taken in automobiles about the city and shown its principal attractions. The party returned at four o'clock to attend a *Thé Dansant* at the Hotel Statler ball-room. It was expected that President and Mrs.

Maclaurin would be present and a reception for them had been arranged. Mrs. Maclaurin's health would not permit of her coming at all and prevented the President from being present on that afternoon.

The big event of the day was the Hawaiian Festa at the University Club. It was modestly called "The Grand Hoola Loola" and the entertainment was staged entirely by the Akron representatives of the club. The dinner itself, which was imported from Hawaii, embraced a list of toothsome edibles from *Okale-Hau* to *Papai Americaine* and this menu, like charity, covered a multitude of sins. The subsequent performance which included a faithful reproduction of the Technology Pageant done in *sepia* was weirdly and wildly wonderful. The music was Hawaiian, the language was Hawaiian, the decorations were Hawaiian and the general atmosphere was Hawaiian from the "Poi-fed Puppies" to "The Spirit of Alma Mater."

Friday was Akron day and in order to take in the wonders of that city it was necessary to get up about daylight, eat a hearty breakfast, and board a special train of electric cars which were waiting. The trip was a pleasant one because it gave an opportunity for fraternizing. On arrival at Akron the three big rubber factories, the Goodyear, Goodrich and Firestone, vied with each other in enter-

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taining their Technology guests. Everywhere was the most open hospitality and generous treatment. The wonders of the Rubber City were told and explained by competent guides, special souvenirs were provided and, after the trip through the factories was completed, a wonderful luncheon was served in each of the three great institutions. At the end impromptu speeches told of the satisfaction of the guests and, later, automobiles carried the party away to the "Anna Deane Farm" which was placed on view through the courtesy of the owner, Mr. O. C. Barber, founder of the Diamond Match Company. From the Anna Deane Farm the visitors were whirled away to the palatial mansion of Mr. Seiberling, president of the Goodyear Tire and Rubber Company. This mansion is a perfect marvel both of beauty and convenience. Mr. Seiberling was present in person and welcomed his guests who were free to roam about the house almost without reserve. Space cannot be given here to describe this most unusual residence which probably could not be duplicated for a sum largely in excess of a million dollars. Later street cars were again boarded, and after dinner the moving pictures of the Reunion were shown in the rooms of the Electrical League on the Hotel Statler roof.

Saturday was given to the serious consideration of the general subject "Technology's Opportunity for Service." The morning session was devoted to a discussion of the subject by the representatives of the local mobilization committees, at which meeting Mr. A. T. Hopkins, '97, presided. This meeting was extremely interesting as it brought out the varied ideas of the delegates in regard to the various ways in which Technology men could serve their country.

The various local committees told of the work that they were doing, each one serving in some useful way and yet no two covering the same field.

The following is a brief report of the meeting of which Maurice R. Scharff, '09, was secretary.

Reports were called for from the representatives of the various clubs and a

printed report was presented by the Technology Club of Dayton, setting for that length the result of its discussions and its recommendations with respect to the activities of the Technology Committee.

A delegate from Akron then made a report submitting the following recommendations:

1. That the National Councils of Defense and Research be asked as soon as possible to give specific assignments to the Technology organization.

2. That factories having facilities for experiment and research offer same for use on problems assigned to them by the National authorities.

3. That each individual should devote some time to the study of his own specialty from the standpoint of National service.

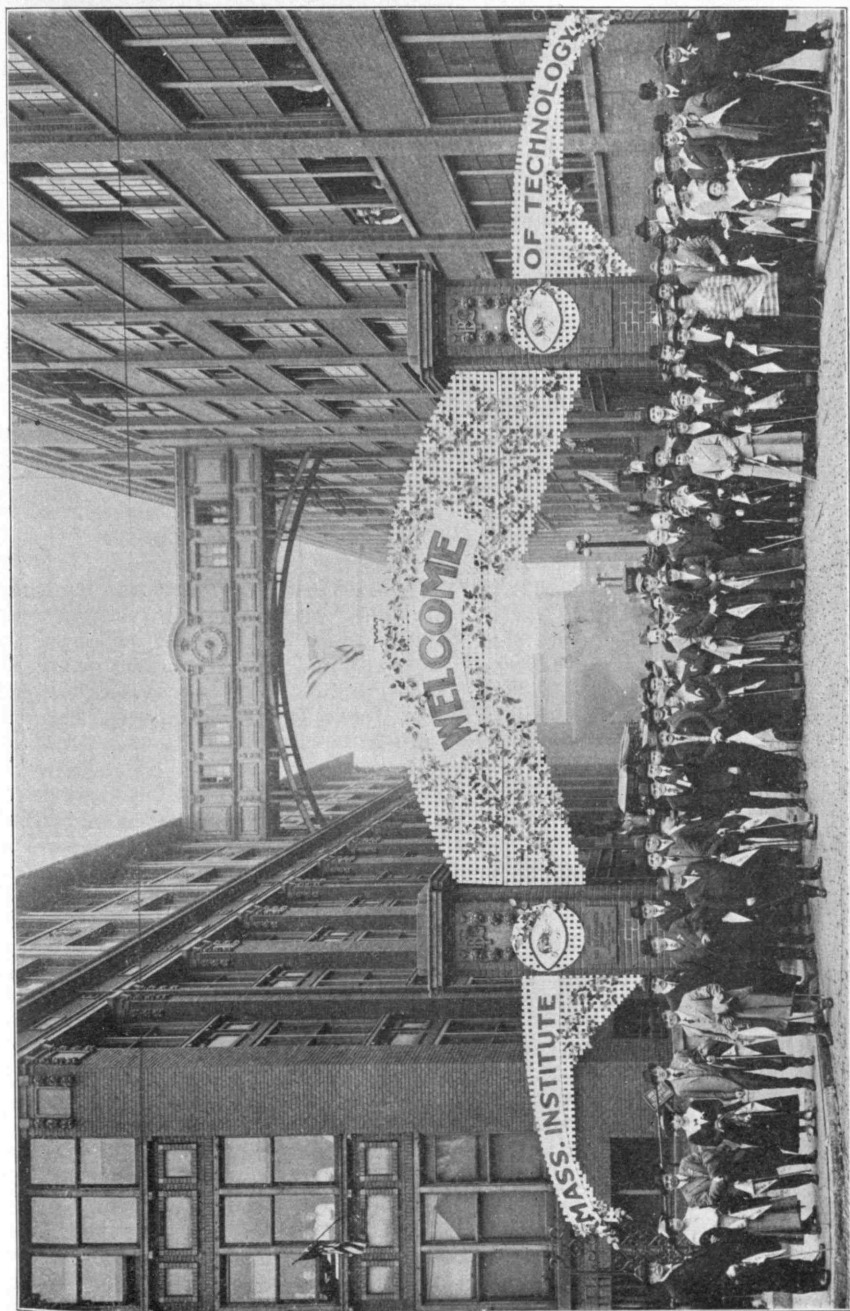
4. That in order to keep things moving until problems can be assigned by the National authorities, each local committee select one or more local problems to work on in the meantime.

5. That every Technology man be urged to put himself in a condition of physical fitness for any service for which he may be called upon.

A report was presented from the Technology Association at Cincinnati with the recommendation that local committees undertake publicity work and organize meetings with local engineering societies and alumni organizations of other colleges which have not yet become active.

A delegate from the St. Louis club pointed out the danger of duplication of the work which has been done by the National Engineering societies and other similar organizations and warned against waste of energy. A recommendation was made that particular attention be given to the problems of how to keep skilled mechanics at home and of postponing public improvement, the need of which is not pressing, so as to conserve the labor supply for use in National service.

A report from the Detroit delegation stated that the Detroit alumni were willing and anxious to serve, but lacked information as to what they could do. They stated that they had been instructed



DELEGATION OF TECHNOLOGY CLUBS ASSOCIATED AT THE WORKS OF THE GOODRICH RUBBER CO., AKRON, OHIO

to come to Cleveland to secure information along this line.

A report from the Pittsburgh organization recommended that local committees refrain from attacking problems, except under the direction of a central National organization; and that duplication of bureaus or committees to direct the work of local committees be avoided.

A telegram was read from the Denver society recommending particular attention to agricultural problems.

Mr. Litchfield read a letter from the association at Portland, Ore., suggesting that each local committee send to all employers located in each district a letter suggesting that employees consult with their employers before enlisting in any military or naval service.

The Technology Club of New York presented a report upon the educational work they have been carrying out through the circulation of books and by the holding of meetings and lectures on subjects in connection with the conduct of the war.

The Cleveland Association suggested that while certain services may best be performed by the Institute at Boston, it was quite possible that others might be accomplished as well or better by an alumni organization located elsewhere. They, therefore, made the suggestion which was subsequently referred to as the "Cleveland Plan," as follows:

That Technology Clubs Associated be made an active and continuing body, recognized as a form of alumni activity and be charged primarily with the conduct of relationships between the alumni and the fields of government, industry and commerce.

That Technology Clubs Associated for the prosecution of such activities shall organize a general committee, composed of delegates, to be chosen by each local Technology club on the basis of one delegate for each one hundred members or fraction thereof.

That such general committee shall appoint from its numbers an executive committee of five (5), which shall serve as the channel of communication between the organization and its fields of effort.

That the Executive Committee shall

establish headquarters at Washington, or such other point as it may decide to be best suited for the prosecution of its work.

That necessary funds be provided by contributing memberships, to be solicited from the alumni, or by such other means as may be devised by the Executive Committee.

That the Executive Committee shall cooperate with other alumni organizations to secure the most effective results.

That the Executive Committee shall be charged with the duty of ascertaining problems of national import, and submitting same to the alumni for action.

After a lengthy discussion, it was voted that a sub-committee be appointed by the chair, to consider the Cleveland proposal and to draft a resolution for presentation to the general meeting of the Technology Clubs Associated in the afternoon.

Messrs. Gardner, Knowles, Godfrey, Munroe, Waite, Hopkins and others were appointed and the meeting adjourned at 1.00 p. m.

After luncheon the annual meeting of the Technology Clubs Associated was called, with President Smythe, '89, in the chair.

The meeting was called to order by President F. A. Smythe, '89, and discussion was open in regard to the next meeting place. Rochester, N. Y., New York City, and Philadelphia, with Wilmington, all extended cordial invitations.

It was moved and carried that Philadelphia be selected.

Mr. Smythe appointed a committee, consisting of Mr. I. W. Litchfield, '85, Mr. L. D. Gardner, '98, and Mr. Morris Knowles, '91, to nominate officers for the ensuing year. They reported and the secretary was instructed to cast a unanimous ballot for the following officers:

Dr. Hollis Godfrey, '98, Philadelphia, president; Pierre S. du Pont, '90, Wilmington, Md., vice-president; C. G. Hyde, '96, San Francisco, Cal., vice-president; Henry M. Waite, '90, Dayton, Ohio, vice-president; Gen. Edmund Hayes, '73, Buffalo, N. Y., vice-president. Executive Committee: F. A. Smythe, '89, Cleveland, Ohio; Frank

Schmitz, '95, New York City, N. Y.; E. B. Phelps, '99, Washington, D. C.; William R. Kales, '92, Detroit, Mich.; Frank E. Fowle, '92, Chicago, Ill.; R. G. Hall, '97, St. Louis, Mo. Secretary-Treasurer: Walter Humphreys, '97, Mass. Institute of Technology. Assistant secretary: E. S. Foljambe, '01, Philadelphia, Pa.

Mr. Gardner, of New York, was asked to explain the work of Dr. Godfrey in connection with the Council of National Defense, which is composed of six cabinet members and the Advisory Commission of seven experts.

He stated how our Technology Mobilization Committee was coöperating under the direction of Mr. I. W. Litchfield, and also explained how the National Research Council, headed by Dr. Hale, was co-operating.

Dr. MacLaurin briefly reviewed what was being done at the Institute in regard to the enlistment of students and stated that the Faculty had offered its services to both the Secretary of War and the Secretary of Navy.

Dr. Godfrey outlined briefly how to best utilize Technology's resources in Washington, his principle being maximum material of the right kind in the minimum of time.

Mr. Munroe very clearly outlined how influence could be brought to bear in Congress by individual groups which serve as minute men throughout the country. The executives at Washington are hampered because petty politics in Congress hold up and delay action so essential for the welfare of this country.

A committee appointed in the morning session, consisting of L. D. Gardner, '98, chairman; J. P. Munroe, '82, A. T. Hopkins, '97, H. M. Waite, '90, R. B. Wallace, '98, Morris Knowles, '91, F. A. Smythe, '89, Maurice Scharff, '09, Hollis Godfrey, '98, George Merryweather, '96, I. W. Litchfield, '85, presented resolutions relative to a Washington department, and the secretary was instructed to cast a unanimous ballot accepting this report. The resolutions were as follows:

WHEREAS, The Technology Clubs Associated have expressed through their repre-

sentatives at this convention, at Cleveland, an earnest desire to coöperate with the Committee on the Mobilization of Technology's Resources in the placing of their resources at the service of the National Government; and

WHEREAS, It is evident that the present crisis demands, above all else, the counsel and activity of technically trained men; therefore, be it

Resolved, That an Executive Committee of five be appointed by the president of the Technology Clubs Associated to coöperate with the Committee on the Mobilization of Technology's Resources in organizing the Technology associations of the country in a joint effort to ascertain those national problems in the solving of which these bodies can be of the greatest service and to secure prompt and effective action regarding them. Be it further

Resolved, That headquarters be at once opened in Washington, with a permanent representative and a sufficient staff to carry out the above plan, and that the Technology Clubs Associated as organizations, coöperate with the Committee on the Mobilization of Technology's Resources in the work of financing.

It was suggested that each alumnus use his personal efforts in bringing pressure to bear on Congress.

It was suggested that all of the local Technology clubs get a complete catalog of their personnel, in connection with the general personnel index at Boston.

An expression of thanks was given by Messrs. Smythe and Hopkins to those in the Northern Ohio Club who have participated in bringing about the reunion.

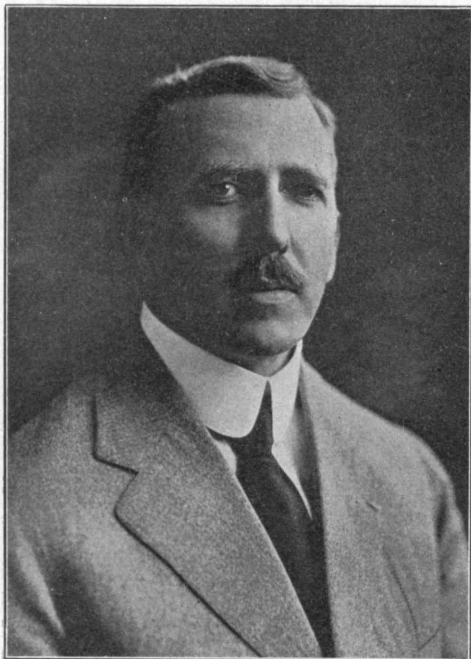
In order to financially support the attached resolution, contributions were given as follows:

New York Technology Club	\$500	L. D. Gardner
Northern Ohio Tech Club..	500	A. T. Hopkins
Dayton Technology Club..	100	C. B. Putnam
G. W. Eaton, through Northern Ohio.....	500	
Detroit Technology Club..	500	Marvine Gorham
St. Louis Technology Club	250	R. G. Hall
Pittsburgh Technology Club	250	Maurice Scharff
Philadelphia Technology Club.....	250	Hollis Godfrey
	<hr/>	
	\$2,850	

The following resolution was carried, after being presented by Mr. Munroe:

The representatives of the Technology Clubs Associated, in convention assembled, desire to place upon record their grateful appreciation of the splendid reception and the delightful entertainment provided by the Technology Club of Northern Ohio, the men of Cleveland and the men of Akron.

This gathering has been another and a



F. A. SMYTHE, '89, PRESIDENT T. C. A.

shining example of the generous hospitality of the Great Middle West.

They desire to express special appreciation of the arrangements made for the entertainment of the visiting ladies; of the generous hospitality of the Goodrich, Goodyear and Firestone companies; and of that of Mr. Barber and Mr. Seiberling; and they congratulate all the officers and other members of the local committees upon having carried out the program for the comfort and pleasure of their visitors, with even more than the customary zeal and team work of Tech men.

The banquet which closed the convention was held at the Statler. Toastmaster Smythe made a very happy introductory address and presented President MacLaurin as the first speaker. The President spoke as follows:—

It is particularly inspiring to meet Technology men under the circumstances of today. Any getting together of our alumni representing different sections of the country would be good, but the getting together of the Technology Clubs Associated is peculiarly appropriate. It emphasizes the national character of the Massachusetts Institute of Technology at a time when there is properly an unusual emphasis on national rather than local institutions. Lack of unity throughout the country was strikingly exemplified before the war, but we may hope that one good result of war will be greater unity amongst our people. For permanent influence in this direction we must look to other fields than war and the most promising is the one occupied by the educational institutions that are national in their scope. There are not many of these, but happily there are some that are freed from the provincialism of particular sections and are broad enough to see the good that is in all other similar institutions that are making to the same great end. Technology students have ideals that are universal in their application and permanent in their effectiveness and have methods never more urgently needed than now. You must instil respect for these ideals and methods into the locality in which you live. You must do this not by talking of generalities but by service in your own field and by the application of scientific methods in the solution of particular problems. There is little use in saying as is so often done that things must be done better or more scientifically or more economically; the only practical help that you can give is to show how improvement is possible and this can be done only by attacking particular problems. See to it as far as you can that the scientific method and point of view is presented in the discussion and conduct of all the problems of public importance in which

you are interested and in attempting this you should join hands with representatives of other schools in this great missionary effort.

At our meeting tonight we are supposed to discuss Preparedness. I sincerely hope that this will get beyond the conversational stage into the realm of action. The subject itself is far too large for after-dinner discussion, but the root problem of it should be familiar to every Technology man. The essence of Technology is its power to foster the scientific spirit and the working of the scientific spirit implies looking ahead, computing, calculating and observing so that there are no surprises, or none except those due to the fallibility of all things human. Everything is predicted as far as possible, there is nothing "rule-of-thumb" or haphazard, and consequently there is no hysteria, all being well ordered and well thought out. When a scientific man mixes various chemicals together he does not rush around in anxious expectation awaiting the result. He has figured out beforehand what will happen and based his figuring on experience and observation. To him there can be no surprises except those due to human errors. He may have taken the wrong chemical or too much of the right one, but except for such things he knows what will happen and he knows what to do to produce a desired result. How different in the realm of political action or inaction, and what a commentary on the lack of scientific method in our country to witness what is going on today. Chaos and almost hysteria are to be found nearly everywhere, and in many respects the country is scarcely better prepared than it was three years ago. War has come upon us apparently suddenly, but it has not come without repeated warnings.

And just as thinking men foresaw the possibility of war, so such men have long seen the possibility of industrial struggle after the war and we must be prepared for that and fortunately our preparation will be in the direct line of preparation for the important needs of the country. It is obvious that during the war our industrial efforts should if possible be made

more effective than in times of peace. Better results than usual will be needed to make up for the material losses that war inevitably entails. Here is a splendid field for scientific effort calling for the best that there is in men trained in the best scientific centers in the country—a field rich in promises of returns to the individual and to the Nation. The Nation has a great opportunity and to seize this opportunity is a national duty.

As to matters strictly military, what can Technology do? You know that she has always done something. The rudiments of the military art have been taught at Technology for fifty years and for long Tech has trained all the naval constructors of the United States, all those who design battleships or submarines or the like coming to Technology for three years after graduation from Annapolis. This course in warship design, however, affects but a few. What is there for the great majority? Much, in my judgment. War in its technical aspect is nine-tenths straight engineering and the man who has been trained soundly as an engineer can be almost immediately useful in the field of war. It will interest you to know that some months ago the Secretary of War, at my suggestion, appointed a board of officers to examine the existing courses at Technology with special reference to their military value. This board was interested particularly in the regular training that Tech gives in so far as that training bears upon the profession of men going into the Engineer, Coast Artillery, Ordnance or Signal Corps, and they reported to the Secretary of War that everything in the engineering courses at Technology had its value for this end and the courses as they now exist should be recognized as giving by far the larger part of the necessary training of an officer in such technical branches as I have mentioned. *Men can be trained for civil life in such a way that they can be soon made effective in war.* Here, in my judgment, lies the hope of democracy. The field of war will not be dispelled in our day and generation. Much can be done to lessen its probability and we must do all we can

in this direction, but we can not reasonably hope yet to abandon it from the globe. To think we can do so may be a pious hope possibly useful as an ideal, but if regarded as anything of practical value, inevitably dangerous. To accept it unquestioningly is to commit the unpardonable sin for the man of science,—the refusal to look at facts, however ugly they may be, the determination to take the world not as it is, but as we think it should be. As long as there is greed in the heart of the individual, there will be a tendency to robbery and we must have police, and as long as there is lust for power and dominion pervading the nations, or those that control their destinies, we must be in danger of war and must therefore have armies. If this meant standing armies of great size such as those in parts of Europe before the war, the outlook would be black indeed. Black or not, it would have to be faced. But the outlook is not really so dark. The experience of this war proves that if only men have preliminary training, a training that it does not take very long to get, they can soon become effective soldiers. And of course they become effective soldiers all the quicker if they are physically fit and mentally well trained, things that it is of the utmost importance that our citizens should be even if war were happily abandoned from the earth. I have said the war in its technical branches is nine-tenths engineering, and I may add that in many of its other branches it is nine-tenths business and big business. The country is rich in men with experience and capacity in the handling of such business and in the emergencies of the future we must rely not on politicians or on officers, except in the field of their specialties, where, of course, they should be of great value, but on men of proved capacity in the conduct of great enterprises. To the training of such men Technology must always make a large contribution.

Dr. Hollis Godfrey, the next speaker, outlined the organization of the Council of National Defense, also the Advisory Commission, of which he is a member, and told of the part that Technology could play in the war.

Mr. Frank A. Scott, chairman of the Munitions Board said substantially:—

We are at war. The time for preparation is past, and if we are not prepared, the consequences must be borne by ourselves. Whether or not we have heeded the lessons within our observation we shall know some day.

At the beginning of the nineteenth century all of Europe was one vast military camp. At the beginning of the twentieth all the world was a military camp. Now that we have lined up against inhumanity and on the side of justice we have a chance to show what our one hundred millions can accomplish.

Dr. Maclaurin and Dr. Howe have said that engineering is to cut the greatest figure in this conflict. War, the most complex science, calls for the best engineering talent the world has produced. In this struggle brains will be our greatest resource. We cannot win this war academically and we cannot delegate it to others. It calls for every ounce of power that we can bring to bear upon it.

When war came it was decided to create a General Munitions Board for the purpose of quickening the munitioning of our forces and to cooperate with our allies. England created a minister of munitions which has proved to be a very necessary factor in the conduct of the war.

One thing we must look out for. We have a small army and a small navy, not on a war basis and neither is yet fitted to carry the load. The technical knowledge of war is in the army and navy but they are under great disadvantages at such a time as this. The object of the Council of Defense is to utilize and reinforce the army system with civilian experience and civilian ability in production. Such an auxiliary and such machinery would help to coördinate the needs of our army with those of the Allies.

To accomplish this is a huge task but not beyond the possibility of performance. The first necessity is to arrange the facts and to analyze the whole question in an orderly fashion. The steps in this development would be: first, anticipate; second, coördinate; third, standardize; fourth, produce. The only serious diffi-

culty is that our needs have been so small that we have been doing things on a laboratory basis. That is why it is necessary to bring in trained civilian ability. The difficulty lies in the fact that we have not fully standardized; we have not gauges, drawings, etc. But the experience of the last two years has been a constructive lesson to us. Some one has said, "America is sometimes foolish, but always fortunate." Dr. Howe remarked that we must forget the past and do things on a very different basis. "Time makes even ancient good untrue." The introduction of civilian aid has been welcomed by the army and navy. It is not yet certain that this form of organization will be finally adopted but, if it is, both arms of the service will heartily support it.

One critical period in the Civil War was when the *Merrimac* started out in its work of destruction but we had the *Monitor* to offset it. The failure of this resource might have been vital.

There is a thought for Tech in Carlisle's words: "This I take to be the true meaning of gunpowder that it makes all men alike tall."

In this war we need brains; we need Tech brains for the purpose of economizing materials used in war and for working out methods to meet new problems.

President Henry C. King of Oberlin College was the next speaker. He said:

You are really asking me to speak on the present duty of educated, thinking, scientifically trained men.

As educated men, you know what it is to have what James called a store of permanent and valuable interests. You know something of the meaning of the whole liberal inheritance. You understand with Herrmann that education ought to give both mental and spiritual fellowship, and mental and spiritual independence. And you recognize that it is peculiarly incumbent upon our higher institutions of learning that they should furnish that unselfish leadership which democracies peculiarly require. Your very privileges, thus, as educated men, lay special obligations upon you.

And as thinking men, you will feel that

it peculiarly concerns you to think, and to think anew, in these critical and destructive days, what civilization means, what democracy means, what liberty and representative government mean, what religion means. And to be sure that these great ideals of the race are realized you must think clearly and deeply enough to mean and to purpose them.

As scientifically trained men you are bound, of course, to cherish the scientific spirit,—the habitual determination to see straight, to report exactly, to give an absolutely honest reaction on the situation in which you are placed. And you will feel bound to help in that scientific mastery of prodigiously increased resources, for which our time so distinctly calls. You will not forget how imperative for science is freedom of conscience, freedom of thought, freedom of speech, freedom of investigation. And in the midst of these days of passionate feeling, you will feel bound, therefore, to stand with calm purpose for real tolerance and consideration.

In the light of these primary obligations as educated men, as thinking men, as men of scientific training, what the country expects of you is to be determined.

And with these obligations in mind, I may urge, first, that the country expects you to *keep your ideals high*. No nation ever came into a great war with cleaner hands, after more patience, or in more disinterested fashion than ours in this war. It peculiarly concerns us all to make sure that our conduct of the war shall match our original aims.

In the second place, the country may well expect you to *believe in the possibilities of a new civilization*; not to be cynics or standpatters. The great Russian revolution already gives us hope that other revolutionary changes of social significance are yet to come out of this war, and that we may believe that there is to be a better civilization than the world has yet seen—a civilization worthy in some measure of the enormous sacrifices which have gone into this war, and more worthy of the name which we give to our civilization—Christian.

In the third place, the country may

well expect you to be in peculiar measure *intelligent, thoughtful, unselfish world-citizens*, with world vision, ashamed not to think in world terms, in terms of humanity. And so thinking, the younger of you, at least, may well remember that no generation since the world began has ever witnessed such a destruction of youthful leaders as has this. That tragic fact lays upon educated, thinking, scientifically trained American youth, solemn obligations.



MR. FRANK A. SCOTT, CHAIRMAN GENERAL
MUNITIONS BOARD

In the fourth place, the country may well ask that you *forecast, with all the help you can obtain from the clearest sighted and farthest sighted social prophets of our time, the demands of the new age*. And you will not doubt that they will require that our own nation, if it is to be ready to play its full part in the new civilization, must with stern self-discipline thoroughly reinvigorate the whole range of its life, physical, political, economic, social, intellectual, moral, and religious. The time for slovenliness in national life in any realm is gone. And here we may

well remember that we insure a united and devoted people only when we lay deep and strong the foundations of economic and social justice for all classes. Are we doing that, when 51 per cent. of the families of America have an annual income of less than eight hundred dollars?

And if we are to meet the demands of the new age, we need also to sweep away cobwebs and subtleties, and to *see the great issue of this war with clearness*. As a thoughtful writer has recently said: "Whatever greedy rivalries lay concealed in the darkness of antecedent diplomacy, the war is steadily becoming a conflict between progress and reaction, humanity and savagery, freedom and tyranny." Ultimately the great issue is, whether nations as well as individuals are to be held to moral standards. For this, those who best understand themselves are fighting. They are fighting for a just and permanent peace; for a League of Nations to insure peace afterward. They are fighting for democracy, for the rights of individual citizens, and for the rights of small states. They are fighting for the very possibility of an even decent—to say nothing of a Christian—civilization. For Germany's philosophy of the state as a law to itself and as above the claims of all morality, is Paganism pure and simple, and makes any nation avowing it, intrinsically and just so far, whether it will or not, an enemy of civilization, of mankind, of Christianity.

Once more, we shall hardly meet the demands of the new age if we do not *keep our vision of the organic view of truth and of human society*, and so preserve a lively sense of the value of the contribution of every man and every class and every nation and every civilization in that new dawning world of coöperating, mutually respecting nations which is to be.

And finally, as has been already implied, the country may well expect of educated, thinking, scientifically trained men, that they shall *maintain and press a true social program by and through the war as well as after it*, to make certain that this world cataclysm shall bear its full fruit in a better civilization than the

world has ever yet seen, because it is true to the Christianity which is the Christianity of Christ, purged clean of shallowness, of hatred, and of arrogance, and applicable to nations as well as to individuals.

Not in the camp his victory lies
Or triumph in the market place,
Who is his nation's sacrifice
To turn the judgement from his race.

The last speaker was Dr. Charles S. Howe, president of Case School of Applied Science, who said:—

To most people patriotism means shouldering a rifle, tearing one's self away from weeping friends and marching off to the sound of martial music. The man who stays at home when others are enlisting is frequently accorded the condemnation of his friends and associates and sometimes is called a coward. The experience of modern war, however, shows that for every man who carries a gun there must be six or seven men at home to take care of his interests and enable him to fight in the trenches. Without these men at home, the soldier with the colors would be helpless and it would be little less than murder to send him against an enemy. The soldier must be fed and this means that crops must be raised. He must have guns and munitions and this means that munitions factories, employing very large forces of men, must be running. Munitions are made out of metals and metals must be mined. Ores must be smelted and undergo various processes of treatment before they are turned into rifles or cannon, or cartridges, or shells, which are used by the soldier. It is said that in some of the battles of the present war 500,000 shells have been fired from the cannon in twenty-four hours and that this has not been an uncommon experience. If this is the case we can form some slight idea of the army of superintendents, engineers, mechanics, and laborers who are needed to produce these death-dealing missiles which are sent upon their paths of destruction by the army at the front.

A good definition of patriotism is "that passion which inspires a man to serve his country." This service should be called forth by a patriotism which is not hysteria

or sentimentality, which has not been inspired by flaming editorials or by passionate speeches. It should be patriotism which has been called forth by the severest processes of logic, by methods of reasoning which are as direct and accurate as a mathematical formula and which point to the path of duty in such a positive way that the man is not only convinced of what he must do but calmly and cheerfully goes forth to do it. Such a patriotism does not ask, "How soon can I get into the trenches?" or "When will it be possible for me to charge the enemy?" but it deliberately and conscientiously asks "What can I do to serve my country most effectively?" If it is the duty of some men to enlist in the mobile army, it is equally the duty of others to stay at home in the factory, in the switchyard, in the mine, or the furnace. Some authority in the Nation should determine where each man should serve and should assume direction of his service wherever it may be.

I am a firm believer in universal military training, but when war comes I would make the term "military" so broad that it would cover all kinds of employment by which the Nation is served, whether in the field or at home, and I would have the men who prepare the materials of war enlist in the army as well as those who don the soldiers' uniforms and march away. Everybody would say that it would be absurd for a man who had been trained as a surgeon to enlist as a private in the army. It is equally absurd for one who has been trained as an engineer to enlist in the ranks. Engineers are in great demand in every army, either at the front with the mobile troops, or at the rear engaged in laying out fortifications, or in building roads so that the army may quickly move from place to place.

When an army is raised, it is much more difficult to find officers than men, for the officer is the teacher who must tell the soldiers what to do, and if there are no instructors the army becomes a mob incapable of any concerted action. Officers should be educated men, because an educated man has been taught to think accurately and logically and an

officer is constantly being called upon to think for his troops and to decide what it is that the army must do. The colleges and the engineering schools, therefore, should send a large number of their graduates, and even of their students, out as officers. Until within a few years, West Point trained all the officers for the army. Now it cannot possibly do so. In fact, in the future, it will supply only a small proportion of the officers needed in any arm of the service. As the army is increased in size, many engineers will be needed. The educated engineer can find employment in the artillery, the ordnance, with the engineers, and with the signal corps. The special technical training which the engineering school gives will be of great value to the man who is called into service with any of these departments.

I have been greatly interested in what President MacLaurin has said about the decision of the board of army officers in regard to the training of men at the Institute for the Reserve Corps. The Institute will render a valuable service to the government by so training men that they can immediately be taken into the reserve corps of officers, but I would like to see it and the other engineering schools go further than this. So far as I can see, there is no reason why these schools cannot, with some slight changes in the curricula, fit officers for the engineer and technical corps of the regular army. At present the government is supplying officers to drill the students in a number of technical schools. If it would also send a number of lecturers each year to instruct engineering students along special technical lines, these students would be prepared for those branches of the service where engineering and scientific knowledge are necessary.

Students in our chemical departments should be taught the chemistry of explosives and the methods of manufacture so that they may go into the arsenals or explosives factories as inspectors as well as chemists. Our civil engineering students should be taught military engineering such as the construction of military roads, temporary bridges, military

structures, both temporary and permanent. They should be taught to lay out defensive works of all kinds, and with this knowledge they might be appointed to the subordinate positions in the engineer corps of the regular army. Our mechanical engineers should have lectures on the design, manufacture, and use of all ordnance. Electrical engineers should be taught the principles of signaling, and both electricals and mechanicals



DR. HOLLIS GODFREY, '98, OF ADVISORY COMMISSION

could be taught aviation. The government is constantly testing materials of all kinds, and chemists and mining engineers would be exceedingly valuable in this work. If, in addition to this instruction, the government would take these engineering students during summer vacations into arsenals or factories where ordnance is being constructed, where aeroplanes are manufactured, or projectiles are being made, they would acquire a large amount of information which would be of very great value to

them should they choose the army for their profession.

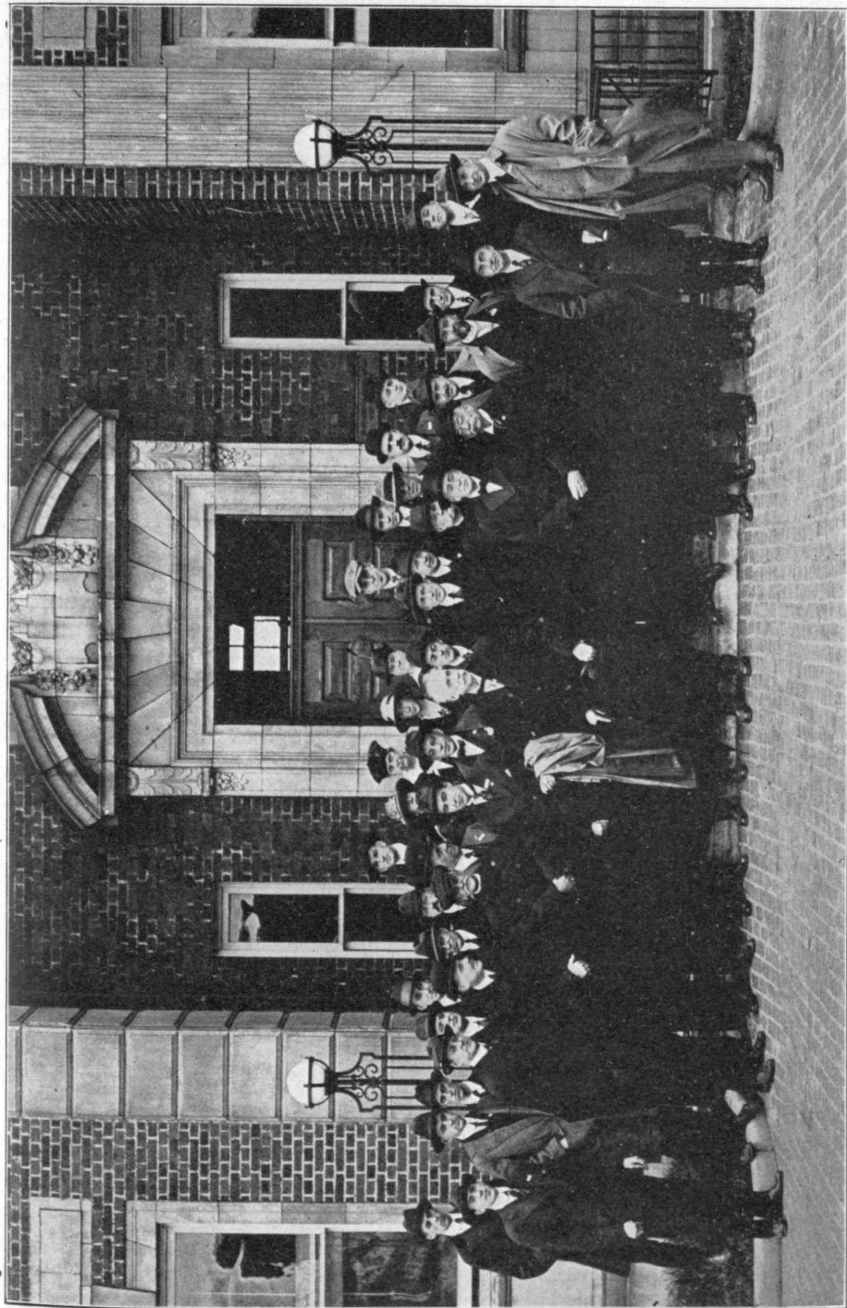
The army needs educated engineers in larger numbers than heretofore. It seems a pity that it is not using the great plants of the engineering schools and their trained professors to prepare students for military service. Some time the government will see the valuable opportunity offered by these engineering schools and will no longer neglect them, but will foster the work that is being done.

The great industrial concerns of the country such as the General Electric, the Westinghouse, the New York Central Company, the Pennsylvania Company, and many others, have little difficulty in getting men from the engineering colleges who have stood well in their studies and who seem to have the personal qualifications which make for success, and they then train them in their own offices and works for the particular things which they will be called upon to do. If the government would inaugurate a somewhat similar system, it could secure a large number of officers at a comparatively small expense. The students in our technical schools would then be trained for service in time of war as well as for service in time of peace. I feel confident that this military education would be extremely valuable to the men in any future occupation which they might enter, because they would be taught discipline, obedience, initiative, and command, and these qualifications are what the industrial world is looking for in young men.

Your chairman alluded to the fact that at your last meeting our country was at peace and that it was supposed when this meeting was called that you would discuss engineering and other matters relating to peace. But conditions have changed since your last meeting and you are now discussing those things which have to do with war and the work of the technical graduate in war. Our country has endeavored to remain at peace with all nations, for it seeks no personal aggrandizement, it seeks no new territory, it has in the past given back territory which it had won by war. I believe it

has no ambition to play a great part in the affairs of other nations—it does not aspire to a seat in the sun. But while we have been carrying on our peaceful affairs, our citizens have been killed, our women and children have been murdered on ships at sea, our vessels have been sunk, and we have been ordered to keep off the high seas and to remain outside of certain large proscribed areas. We see, also, democracy threatened, savage and brutal methods of warfare in operation, our flag insulted, and our freedom threatened. The present administration has done everything it could to keep the country at peace—in fact, many people have thought that it has done too much—but at last war has been declared. I sincerely trust that we shall really get into this war and that we shall insist on helping to settle some of the fundamental questions which seem to be at issue. One of these questions is the right of the people of each country to govern themselves. If Germany had been democratic this war would never have occurred and we ought not to give up the present struggle until we have placed the government of Germany in the hands of her people, for, until that time comes, the menace of war will continually be before the nations of Europe. If Germany establishes a democratic form of government, militarism will cease.

This country has always stood for freedom and we are now allied with other nations who are fighting for it. As engineers and as men we must pledge ourselves to fight for the political freedom of all European nations and we must not rest until these peoples gain a victory as momentous and as complete as that gained by our forefathers when they struggled for their freedom. We must also stay in this fight until the nations of the earth desire peace rather than war and are willing to enter into such a league that war, if not impossible, will at least be improbable for many generations to come. We shall fight with no song of hate in our hearts but because we love freedom and because we wish to bring to other nations those opportunities for which our people and our flag have stood.



MEMBERS OF TECHNOLOGY CLUBS ASSOCIATED AT NELA PARK, CLEVELAND

BUSINESS OF THE COUNCIL

New Advisory Committees appointed—Changes in by-laws reported and Tech's part in the war discussed

At the meeting of the Alumni Council held April 30 the following nominees for alumni advisory members on the undergraduate activities were appointed.

Athletics: Lloyd C. Cooley, '12, in place of H. E. Worcester, '97, whose term has expired. Finance Committee: Stuart Chase, '10, in place of S. G. H. Fitch whose term has expired. Musical Clubs: G. E. Russell, '00.

Tech Show: Alexander Macomber, '07, to succeed himself (on the request of the undergraduates).

Dudley Clapp, '10 to succeed Charles Parker Fiske who has resigned.

The Tech and Other Undergraduate Publications: H. P. Claussen, '16, in place of R. H. Ranger, '11, whose term has expired, Prof. A. T. Robinson and O. R. Freeman, '15.

Budget Committee: H. S. Ford, bursar, M. B. Dalton, '15, H. E. Worcester, '97.

Sunday Powwows: J. P. Munroe, '82, T. D. Brophy, '16, H. E. Kebbon, '12.

A report was made by the Alumni Advisory Council on Undergraduate Finance on the question of the undergraduate tax, the amount of the tax and the suggested appropriation from this amount, by the chairman, Mr. S. G. H. Fitch. The following is the report which was accepted:

The Alumni Advisory Committee on Undergraduate Finance has considered the proposed undergraduate tax, approved in principle by the Alumni Council at its meeting held February 26, 1917, and desires to make the following recommendations:

First. That an undergraduate tax of eight dollars (\$8) be levied annually on all male students attending the Institute who enter after September 1, 1917, and who pay, or have paid on their behalf, full tuition fees, including graduate students, special students and unclassified students.

Second. That all such students who do not pay full tuitions, but who pay, or have paid on their behalf, tuition fees to the amount of \$100 or more, be required to pay a tax of five dollars (\$5) per year. All such students who pay less than \$100 in tuition fees should pay a tax of three dollars (\$3) per year.

Third. That the proceeds of the tax be devoted to the promotion of student life at the Institute, with special reference to the physical and social welfare of the men and the development of what is known as the Technology spirit.

No part of the tax shall be spent for any class function, athletic event or social entertainment not open without charge to every qualified member of the student body in good standing.

Fourth. That this tax be expended under the general direction of the Institute Committee, subject to the approval of an advisory committee on budgets appointed by the Corporation.

Fifth. That during the first year the tax be apportioned approximately as follows:

		Total Amount Based on 1800 Students
Institute Committee	\$.17	\$300.
Classes	.73	1,300.
Athletics	2.50	4,500.
Walker Memorial	3.00	5,400.
Health Insurance	1.00	1,800.
Reserve and Contingent Fund	.60	1,100.
	<hr/>	<hr/>
	\$8.00	\$14,400.

Proposed changes in the by-laws were presented by the special committee appointed to revise the constitution and by-laws. The sections of the by-laws which concern the date of the annual election of the officers of the association were

circulated as they stand at present and with the proposed changes. By vote of the Council these changes were approved and the secretary was authorized to have them published in the TECHNOLOGY REVIEW for at least thirty days when action may be taken upon them at a subsequent meeting.

A report of the Cleveland convention of the Technology Clubs Associated was made by Mr. Munroe and additional reports were made by the vice-president of Technology Clubs Associated, Mr. Morris Knowles, '91. He also spoke of the work being carried on in Washington by our alumni.

The chairman, Mr. Hart, '89, next introduced the topic of the evening: What Technology is doing for the nation in time of war. On account of Dr. MacLaurin's not being able to be present at the Council meeting, Mr. Hart outlined what has been done by the Corporation toward preparation for the war: how the Institute has already offered its laboratories; how members of the Faculty have been taking up special work and how the Institute buildings have recently been used for the holding of army examinations and also how a committee on research has been appointed; made up of members from the Corporation, from the Faculty and from the alumni.

He then introduced Professor C. H. Peabody, '77, chairman of the Faculty, who told of the new intensive course in naval architecture being offered to candidates for graduation in several of the engineering courses. Some fifty students are working on this course and by the first of July will be recommended to the Bureau of Construction of the United States Navy for special work and will, perhaps, be appointed in the service.

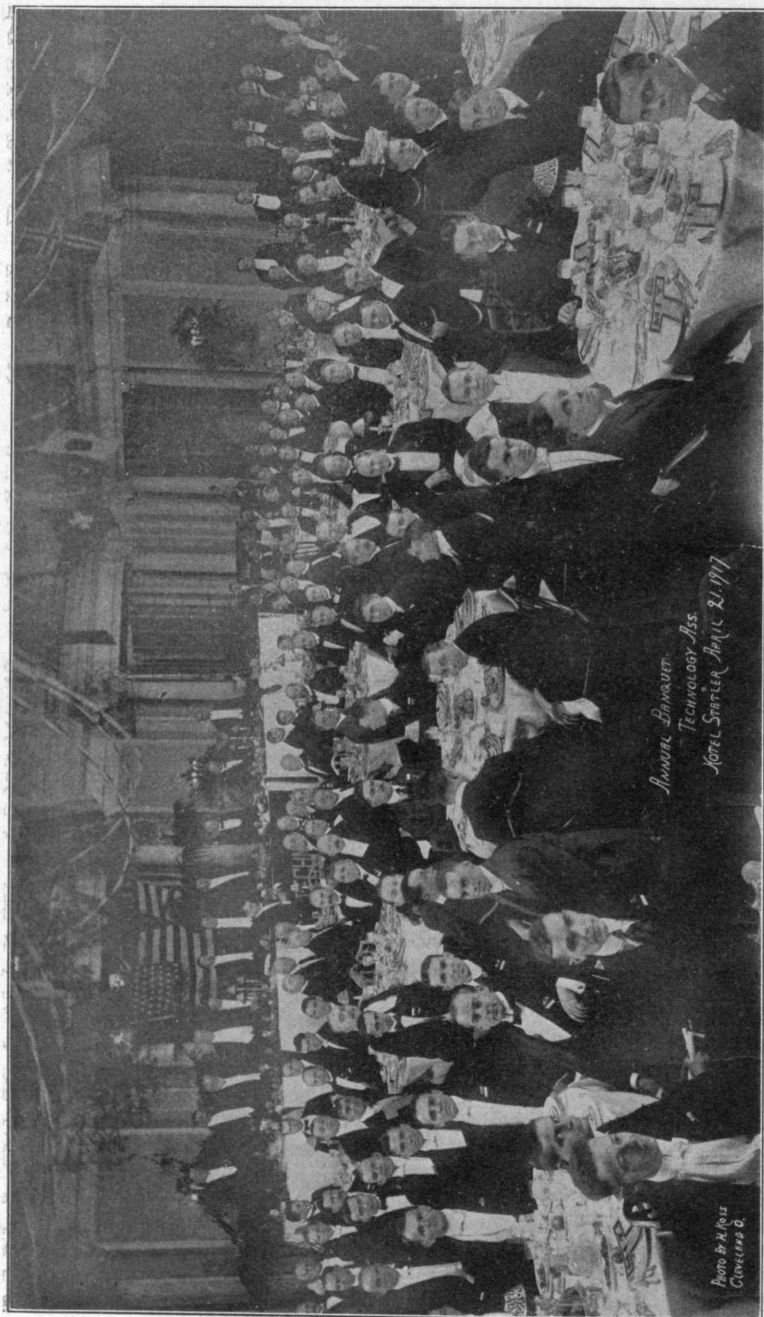
Major E. T. Cole spoke of the enthusiasm shown by the students in preparing for the war and what a large number of seniors had already offered their services and how the Faculty were trying to hold back the students who are below the senior class in order that they could better prepare themselves for the work of the nation. He believed that the showing which will be made by Technology students will

be of great credit to the Institute. He urged that all the men who are physically able to serve their country and who are not tied by family ties should offer themselves for military service for many who are not physically well enough to do the severe work of the army may well help the army behind the lines.

Capt. F. B. Downing, of the Engineer Corps, who is now stationed at the Institute was called upon and he spoke, too, of the good work being done by the undergraduate organization of an Engineer Corps.

The President next called upon Mr. E. P. Brooks, '17, who gave a chronological history of what the students have done since diplomatic relations were broken off with Germany, just before the opening of the second term, and showed how from confusion, order has been brought about by a coalition committee made up of members of the Faculty and of the student body. He spoke of the several mass meetings and of the advice of the President and of the sympathetic aid given by Major Cole and other members of the Faculty. He told how an executive committee of this general committee has been made up and how they edited the notices which were posted on the bulletin board for the students and how they brought information of the opportunities in the various branches of the army and industrial service to the attention of the students. He told how they were trying to hold back the juniors and sophomores as well as the freshmen until they were better equipped for service. His description of the student activities was listened to with much interest by the Council.

The work having been done by the Alumni Association through the Committee on the Mobilization of Technology's Resources was outlined by Mr. Litchfield, '85, who spoke of the recent meeting at Cleveland and of his more recent visit to Washington. He told what an active part Technology men were taking in the preparation of the War Department and of the Department of the Navy and how well the Institute was represented by Dr. Hollis Godfrey, '98, on the National Council of Defense. He outlined the ac-



*Arrival Dinner
Technology Ass.
Hotel Statler April 21, 1917*

*Photo by H. J. Fox
Cleveland, O.*

BANQUET OF TECHNOLOGY CLUBS ASSOCIATED, HOTEL STATLER, CLEVELAND, APRIL 21, 1917

tivities of the Cleveland convention and its resolutions and of the proposed headquarters at Washington. He also told of how he had met with the alumni secretaries in New York and how it was likely that a committee would be appointed to care for the technical group of colleges.

Mr. R. H. Howes, '03, next told the Council of the activity undertaken by the New York Technology Club.

Following this talk, Colonel Locke, '86, who is chairman of the committee appointed for the consideration of the Congress on Human Engineering presented the following report which was accepted:

"The Committee of the Alumni Council appointed to consider the question of holding at Technology a Congress on Human Engineering makes the following report and recommendations:

"1. That such a congress under the auspices of Technology is desirable in order to emphasize the need of a sympathetic understanding of the human factor, as well as the purely technical or scientific aspects of industry.

"2. That the congress be held, if practicable, in connection with the dedication of the Walker Memorial.

"3. That the congress be held late in October or early in November.

"(The committee feels that the congress should not be held until the regular fall term is under way in order to avoid the extra work and confusion of adjustment of programs and other term beginning routine.)

"4. That the program for the congress consist of:

"a. Conference on problems of Employment Management, Vocational Selection, Welfare Work, Safety, Collective Relations with Labor, the Human Equation in Industry, with papers and discussions.

"Leaders, both business men and educators, from all parts of the country to be invited to take part.

"These conferences to be open to students.

"b. Convocations and special lectures or round tables particularly for the instruction and inspiration of the students.

"c. Special industrial personnel exhibit.

"This exhibit, or at least portions of it, to form the beginnings of a permanent Technology exhibit; the exhibit to be divided perhaps into sections, one particularly for the employers, and one for the students."

Schools for Aviators

Six universities are designated by the War Department as training schools for prospective army aviators, who will have two or three months' instruction in physics, mechanics and military drill, beginning in about six weeks. The schools are Cornell, Illinois, Ohio, California and Texas universities and Tech.

Some of the six thousand applicants for the army aviation corps will be selected for assignments to the university after preliminary physical and mental examinations. Meanwhile each of the universities will send three members of its faculty to study practical aviation problems at the Canadian training school, connected with the University of Toronto. Heads of the institutions meeting to-day with Brigadier General George O. Squier, chief of the army aviation service, agreed to these arrangements.

The War Department intends to send practical aviators to each training school to assist the three faculty members in directing the courses, although the present intention is not to use the university campuses as aviation fields. Actual flying training will be given to the students at the army's aviation camps. All the schools chosen already have military instruction.

Other schools probably will be chosen later for similar training centres. Ohio State University at Columbus has made tentative arrangements to use a string of ten aviation fields being established between Columbus and Dayton by an aeroplane company in Dayton. The two cities would be the terminals of a regular flying course, with the training fields at Dayton.

Arrangements for the university courses were made through the Aeronautics Committee of the Council of National Defense.

Standing of Fraternities

In 1915, there was published in the REVIEW an article on the relative standing of students at Technology which included a statement of the relative academic standing of the Technology chapters of fraternities. So much interest was shown in this that the following year a separate study was made of the order of the Technology chapters in their academic standing. At that time the Interfraternity Council had asked the registrar to make an annual report of the order of the chapters in their academic record. This council has offered a cup to the chapter which stands first in the list each year. It was impracticable, on account of the moving from the old plant to the new, to have a study for the school year of 1915-16 completed by January of this year. The work is now complete, however, and the chapters are found to be arranged in the following order: Delta Kappa Epsilon, Delta Tau Omega, Delta Phi, Chi Phi, Phi Gamma Delta, Theta Xi, Sigma Chi, Phi Sigma Kappa, Zeta Beta Tau, Phi Beta Epsilon, Phi Kappa Sigma, Beta Theta Pi, Theta Chi, Lambda Chi Alpha, Delta Tau Delta, Delta Psi, Kappa Sigma, Delta Chi, Delta Upsilon, Sigma Alpha Epsilon. It was found in 1915 by the first study, that the average standing of the fraternity students was somewhat less than the average standing of all students, and therefore lower than the record of the non-fraternity students. In the second study, an advance was noticed in the standing of the fraternity man up to a point where his standing was equal to the standing of the non-fraternity student. By this last study it is found that although the standing of the two groups of students is not exactly equal, it is practically the same. The non-fraternity students are once more leading the fraternity men by a slight margin.

In the first two studies, the record of the fourth year students was the highest and the record of the second year students the lowest. The standings of both the third year and the first year students was practically identical. The third study,

however, records a little difference in the relative standing of the classes. The fourth year students are once more the highest in standing, the third year students are not quite as high in standing as those of the second year. There is once more observed a falling off in the standing of the second year class as compared with the first year class.

On account of the war a large number of students have left the Institute with incomplete records in the second term. It may not be practicable, therefore, to make a study of the relative standing of the fraternities based on their second term record. For the current year it may be necessary to make a study of the records of the first term only. It has been held, however, that a more just way of comparing the groups of students is to compare them by their second term record, because so many of our students come to us from other colleges and do not adjust themselves to the conditions of the Institute until late into the first term. Therefore the records of the first term are likely to be somewhat lower than those of the second term, in the case of these students who come to us from other colleges, and the records of the first term may perhaps not be as reasonable a standard to judge the student by as those of the second term.

War Committee at Tech

A joint committee of the Faculty and students has been formed at the Institute for the purpose of considering all problems arising because of the war. The main purpose of the committee is to secure coördination and unity of purpose among the undergraduates, and to give stability to the work of the Student Preparedness Committee. The new body is composed of fifteen students and eleven members of the Faculty. At its head is President Maclaurin, who, with Dean Burton and Registrar Humphreys, represents the administrative officers. Other members of the Faculty include Professors E. F. Miller, W. K. Lewis, H. G. Pearson, C. H. Peabody, W. T. Sedgwick, and W. E. Wickenden. The representatives of the

military department are Major Cole and Captain J. W. Howard; E. P. Brooks, J. M. Debell, J. W. Doon, L. L. McGrady and R. W. VanKirk represent the Institute Committee; A. F. Benson, H. T. Swan, A. E. Windle and D. D. Warner the Preparedness Committee; E. F. Deacon, *The Tech*; A. N. Pray, the drill squads; A. E. Tuttle, the Rifle Club, K. Reid, the architects; C. H. M. Roberts, colonel of the 1920 regiment. The committee has already commenced its work by providing opportunity for any man to drill at Tech field, where drill squads will be in action every afternoon. Each man will be given a chance to lead and command a squad of men at some time during the drill period.

For Merchant Marine

Mobilization of soldiers and seamen for the new American merchant marine is to begin at an early date by plans now being formulated by Commissioner John A. Donald of the United States shipping board, according to an announcement at Boston made by Henry Howard, '89, of Brookline, speaking as the representative of the commissioner.

"It is anticipated," Mr. Howard's statement said, "that Boston will be the national headquarters for an aggressive campaign of recruiting and schooling men who will officer and man the 1,000 cargo carrying steamships the Government is to build to combat Germany's submarine menace and to fill other places in the coastwise and foreign shipping of the nation to meet war needs.

"Enrolling offices and schools in navigation for the prospective officers will be opened in cities on the Atlantic and Pacific coasts, the Great Lakes and the gulf. Instruction in navigation will be given free of charge by teachers furnished by the government to men who can demonstrate a satisfactory knowledge and experience in practical seamanship. Examinations will be given as heretofore by the steamship inspection service, and those passing the examination and accepted by the shipping board will be placed for training on vessels in the coast-

wise trade, or elsewhere outside the submarine zone, until wanted for transatlantic service. Each man accepted will be assured liberal pay.

"A plan for instruction in these training schools is being worked out by Dean Burton of the Institute, a former member of the coast and geodetic survey."

Meeting at Harrisburg

The annual dinner of the Central Pennsylvania Alumni Association of the Massachusetts Institute of Technology was held at the Engineers Society Club House, Harrisburg, Pa., on Saturday evening, May 12.

Sixteen men were present and after a very good dinner were shown the moving pictures taken at the Golden Jubilee Celebration in Boston last fall. A letter from Mr. Litchfield, '85, was read, giving information regarding the assistance given the National Government by the Technology Mobilization Committee. All of the men promised to help in any way possible and a resolution was passed which gives the association authority to levy a moderate assessment on the members to secure funds to enable the local committee to cooperate with the general committee in Boston.

E. Stuart, '10, who has just returned from two years' service with the Red Cross in Serbia gave an account of his work and experiences which opened the eyes of all to the task confronting this country. It is unnecessary to say that this part of the entertainment was timely and probably of greater interest than anything else which the committee in charge could have provided.

The officers elected for the coming year are as follows: C. A. Emerson, Jr., '05, Harrisburg, president; Farley Gannett, '02, Harrisburg, secretary.

The men present at the dinner were: F. E. Daniels, Basil Lanphier, E. A. Weimer, R. E. Irwin, H. P. Drake, C. A. Emerson, R. M. Barton, Farley Gannett, R. V. McKay, F. A. Robbins, J. A. Creighton, G. M. Rollason, George Bright, E. Stuart, R. L. Jones, C. A. Bryan.—*Farley Gannett, '02, Sec.*

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